

Masamitsu Hoshino

List of Publications by Year in descending order

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86
papers

1,516
citations

304743

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h-index

395702

33
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90
all docs

90
docs citations

90
times ranked

920
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|------|-----------|
| 1 | Scaled plane-wave Born cross sections for atoms and molecules. <i>Reviews of Modern Physics</i> , 2016, 88, . | 45.6 | 118 |
| 2 | Dynamic features of ion guiding by nanocapillaries in an insulating polymer. <i>Physical Review A</i> , 2009, 79, . | 2.5 | 58 |
| 3 | Cross sections and oscillator strengths for electron-impact excitation of the \tilde{A}^1B_{11} electronic state of water. <i>Journal of Chemical Physics</i> , 2007, 126, 064306. | 3.0 | 57 |
| 4 | Cross section data sets for electron collisions with H ₂ , O ₂ , CO, CO ₂ , N ₂ O and H ₂ O. <i>European Physical Journal D</i> , 2012, 66, 1. | 1.3 | 55 |
| 5 | Site-selective ion production of the core-excited CH ₃ F molecule probed by Auger-electron-ion coincidence measurements. <i>Physical Review A</i> , 2005, 72, . | 2.5 | 47 |
| 6 | High-resolution total-cross-section measurements for electron scattering from Ar, Kr, and Xe employing a threshold-photoelectron source. <i>Physical Review A</i> , 2011, 84, . | 2.5 | 42 |
| 7 | Vibrational effects on the shape resonance energy in the K-shell photoionization spectra of CO. <i>Physical Review A</i> , 2003, 68, . | 2.5 | 41 |
| 8 | Double-slit experiment with a polyatomic molecule: vibrationally resolved C 1s photoelectron spectra of acetylene. <i>New Journal of Physics</i> , 2012, 14, 033012. | 2.9 | 40 |
| 9 | Elastic cross sections for electron scattering from GeF ₄ : Predominance of atomic-F in the high-energy collision dynamics. <i>Journal of Chemical Physics</i> , 2012, 136, 134313. | 3.0 | 38 |
| 10 | Cross sections for the electron impact excitation of the B ₁ , A ₁ and A ₁ dissociative electronic states of water. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2007, 40, 697-708. | 1.5 | 36 |
| 11 | Electron scattering from N ₂ O: absolute elastic scattering and vibrational excitation. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2000, 33, 1687-1702. | 1.5 | 35 |
| 12 | Photoelectron-recoil-induced rotational excitation of the $\tilde{X}^1\Sigma^+$ electronic state of the N_2^+ ion. <i>Journal of Chemical Physics</i> , 2009, 131, 114307. | 2.5 | 32 |
| 13 | Cross sections for electron impact excitation of the $\tilde{C}^1\tilde{\Pi}$ and $\tilde{D}^1\Sigma^+$ electronic states in N ₂ O. <i>Journal of Chemical Physics</i> , 2009, 131, 114307. | 3.0 | 31 |
| 14 | Substitution effects in elastic electron collisions with CH ₃ X (X=F, Cl, Br, I) molecules. <i>Journal of Chemical Physics</i> , 2010, 132, 074309. | 3.0 | 31 |
| 15 | A study of electron scattering from benzene: Excitation of the $1B_{1u}$, $3E_{2g}$, and $1E_{1u}$ electronic states. <i>Journal of Chemical Physics</i> , 2011, 134, 134308. | 3.0 | 29 |
| 16 | Vibrationally resolved partial cross sections and asymmetry parameters for nitrogen K-shell photoionization of the $\tilde{X}^1\Sigma^+$ electronic state of the N_2^+ ion. <i>Journal of Chemical Physics</i> , 2009, 131, 114307. | 2.5 | 28 |
| 17 | A study of electron interactions with silicon tetrafluoride: elastic scattering and vibrational excitation cross sections. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2012, 45, 095204. | 1.5 | 28 |
| 18 | Excitation of the lowest lying $\tilde{X}^1\Sigma^+$, $\tilde{A}^1\Sigma^+$, and $\tilde{B}^1\Sigma^+$ electronic states in water by 15eV electrons. <i>International Journal of Mass Spectrometry</i> , 2008, 271, 80-84. | 1.5 | 27 |

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|----|---|-----|-----------|
| 19 | <p>Role of the recoil effect in two-center interference in X-ray photoionization. Chemical Physics, 2006, 329, 329-337.</p> <p>Electron impact excitation of the C^{1s} core level in C_2 and C_2H_2. Physical Review A, 2008, 77, .</p> | 2.5 | 26 |
| 20 | <p>Role of the recoil effect in two-center interference in X-ray photoionization. Chemical Physics, 2006, 329, 329-337.</p> | 1.9 | 25 |
| 21 | <p>Electron impact excitation of the C^{1s} core level in C_2 and C_2H_2. Physical Review A, 2008, 77, .</p> | 2.5 | 25 |
| 22 | <p>Experimental observation of neutral radical formation from CH_4 by electron impact in the threshold region. Physical Review A, 2006, 74, .</p> | 2.5 | 22 |
| 23 | <p>Negative ion formation through dissociative electron attachment to the group IV tetrafluorides: Carbon tetrafluoride, silicon tetrafluoride and germanium tetrafluoride. International Journal of Mass Spectrometry, 2013, 339-340, 45-53.</p> | 1.5 | 22 |
| 24 | <p>Measuring electron-impact cross sections of water: elastic scattering and electronic excitation of the 1B_1 and 1B_1 states. European Physical Journal D, 2016, 70, 1.</p> | 1.3 | 22 |
| 25 | <p>Absolute elastic differential cross sections for electron scattering by C^{1s}. Physical Review A, 2009, 79, .</p> | 2.5 | 21 |
| 26 | <p>A comprehensive and comparative study of elastic electron scattering from OCS and CS₂ in the energy region from 1.2 to 200 eV. Journal of Chemical Physics, 2013, 138, 054302.</p> | 3.0 | 21 |
| 27 | <p>Electronic excitation of carbonyl sulphide (COS) by high-resolution vacuum ultraviolet photoabsorption and electron-impact spectroscopy in the energy region from 4 to 11 eV. Journal of Chemical Physics, 2015, 142, 064303.</p> | 3.0 | 21 |
| 28 | <p>Differential elastic electron scattering cross sections for CCl₄ by 1.5–100 eV energy electron impact. Journal of Chemical Physics, 2011, 135, 234309.</p> | 3.0 | 20 |
| 29 | <p>Symmetry- and vibrationally-resolved C K-shell photoionization studies of C₂H₂. Chemical Physics Letters, 2006, 421, 256-260.</p> | 2.6 | 17 |
| 30 | <p>Total cross sections for electron scattering from He and Ne at very low energies. Physical Review A, 2014, 89, .</p> | 2.5 | 17 |
| 31 | <p>Threshold photoelectron source for the study of low-energy electron scattering: Total cross section for electron scattering from krypton in the energy range from 14 eV to 20 eV. Physical Review A, 2010, 82, .</p> | 2.5 | 16 |
| 32 | <p>Revisiting the photoabsorption spectrum of NH₃ in the 5.4–10.8 eV energy region. Journal of Chemical Physics, 2019, 151, 184302.</p> | 3.0 | 16 |
| 33 | <p>Probing the isomer, fluorination and bond effects in C₃H₆, cyclo-C₃H₆ and C₃F₆ molecules using electron impact. European Physical Journal D, 2005, 35, 249-255.</p> | 1.3 | 15 |
| 34 | <p>Effect of vibrations on C1s photoemission in formaldehyde in the shape resonance region. Physical Review A, 2005, 71, .</p> | 2.5 | 15 |
| 35 | <p>Vibrationally resolved partial cross sections and asymmetry parameters for carbon K-shell photoionization of the CO₂ molecule. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 3047-3056.</p> | 1.5 | 15 |
| 36 | <p>Elastic electron scattering from CF₃H and CF₃I. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 135205.</p> | 1.5 | 15 |

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|----|---|-----|-----------|
| 37 | Negative ion formation through dissociative electron attachment to GeH ₄ : Comparative studies with CH ₄ and SiH ₄ . International Journal of Mass Spectrometry, 2011, 306, 51-56. | 1.5 | 15 |
| 38 | Elastic cross sections for electron scattering from iodomethane. Journal of Physics B: Atomic, Molecular and Optical Physics, 2011, 44, 045207. | 1.5 | 15 |
| 39 | A-band methyl halide dissociation via electronic curve crossing as studied by electron energy loss spectroscopy. Journal of Chemical Physics, 2010, 133, 054304. | 3.0 | 14 |
| 40 | Measurements of Total Cross Sections for Positron Scattering from He under Magnetic-Field-Free Conditions Using an Electrostatic High-Brightness Slow Positron Beam System. Journal of the Physical Society of Japan, 2011, 80, 064301. | 1.6 | 14 |
| 41 | Angle-resolved ion yield spectroscopy for the 1s $\hat{\sigma}^+$ 3 $\hat{\sigma}^-$ excited states in hot N ₂ O molecules. Chemical Physics Letters, 2006, 428, 34-38. | 2.6 | 13 |
| 42 | Low energy electron energy-loss spectroscopy of CF ₃ X (X=Cl,Br). Journal of Chemical Physics, 2007, 126, 024303. | 3.0 | 13 |
| 43 | Ultra-low-energy electron scattering cross section measurements of Ar, Kr and Xe employing the threshold photoelectron source. European Physical Journal D, 2012, 66, 1. | 1.3 | 13 |
| 44 | Symmetry-Resolved Absorption Spectra of Vibrationally Excited CO ₂ Molecules. Physical Review Letters, 2005, 95, 203002. | 7.8 | 12 |
| 45 | Experimental and theoretical study of double-electron capture in collisions of slow C ⁴⁺ (1s2S1) with He(1s2S1). Physical Review A, 2007, 75, . | 2.5 | 12 |
| 46 | Vibrationally resolved nitrogen K-shell photoelectron spectra of the dinitrogen oxide molecule: Experiment and theory. Chemical Physics Letters, 2007, 438, 14-19. | 2.6 | 12 |
| 47 | A vibrationally resolved C 1s $\hat{\sigma}^+$ Auger spectrum of CO ₂ . Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 045103. | 1.5 | 12 |
| 48 | Cross sections for elastic scattering of electrons by CF ₃ Cl, CF ₂ Cl ₂ , and CFCI ₃ . Journal of Chemical Physics, 2013, 138, 214305. | 3.0 | 12 |
| 49 | Vibrationally resolved partial cross sections and asymmetry parameters for nitrogen K-shell photoionization of the NO molecule. Journal of Physics B: Atomic, Molecular and Optical Physics, 2008, 41, 085105. | 1.5 | 11 |
| 50 | Vibration-induced suppression of valence-Rydberg mixing in the O 1s $\hat{\sigma}^+$ Rydberg series in N ₂ O. Physical Review A, 2008, 77, . | 2.5 | 11 |
| 51 | Resonant vibrational excitation of CH ₃ X (X = F, Cl, Br and I) by low-energy electron impact. Journal of Physics B: Atomic, Molecular and Optical Physics, 2010, 43, 065205. | 1.5 | 11 |
| 52 | Negative ion formation through dissociative electron attachment to the group IV tetrachlorides: Carbon tetrachloride, silicon tetrachloride and germanium tetrachloride. International Journal of Mass Spectrometry, 2018, 426, 12-28. | 1.5 | 11 |
| 53 | Quenching and restoring of the $\hat{\sigma}^+$ cationic state in resonant Auger electron spectra of CO in the vicinity of the O 1s $\hat{\sigma}^+$ resonance. Physical Review A, 2006, 74, . | 2.5 | 10 |
| 54 | Vibrationally resolved partial cross sections and asymmetry parameters for oxygen K-shell photoionization of the CO ₂ molecule. Journal of Physics B: Atomic, Molecular and Optical Physics, 2006, 39, 3655-3663. | 1.5 | 10 |

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|----|--|-----|-----------|
| 55 | Electron and positron scattering cross sections for propene and cyclopropane. <i>Physical Review A</i> , 2008, 77, . | 2.5 | 10 |
| 56 | Benchmark differential cross sections for electron impact excitation of the $n=2$ states in helium at near-ionization-threshold energies. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2009, 42, 145202. | 1.5 | 10 |
| 57 | Electron impact excitation of the low-lying $3s[3/2]1$ and $3s^{\epsilon^2}[1/2]1$ levels in neon for incident energies between 20 and 300 eV. <i>Journal of Chemical Physics</i> , 2013, 139, 184301. | 3.0 | 10 |
| 58 | Electron and positron scattering from the benzene derivative: Toluene. <i>Physical Review A</i> , 2007, 75, . | 2.5 | 9 |
| 59 | Angle-resolved photoion yield and resonant Auger spectroscopy for the doubly excited Rydberg states above the C_{1s} threshold of CO. <i>Physical Review A</i> , 2013, 88, 043402. | 2.5 | 9 |
| 60 | Resolution of a significant discrepancy in the electron impact excitation of the C_{1s} threshold of CO. <i>Physical Review A</i> , 2013, 88, 043402. | 2.6 | 9 |
| 61 | Elastic differential cross sections for C ₄ F ₆ isomers in the 1.5 eV–200 eV energy electron impact: Similarities with six fluorine containing molecules and evidence of F-atom like scattering. <i>Journal of Chemical Physics</i> , 2014, 141, 124302. | 3.0 | 9 |
| 62 | Elastic and inelastic scattering of low-energy electrons from gas-phase C_{60} : elastic scattering angular distributions and coexisting solid-state features revisited. <i>European Physical Journal D</i> , 2021, 75, 1. | 1.3 | 9 |
| 63 | Vibrational excitation functions for inelastic and superelastic electron scattering from the ground-electronic state in hot CO. <i>Physical Review A</i> , 2008, 78, 043402. | 2.5 | 8 |
| 64 | Elastic differential cross sections for C ₄ F ₆ isomers in the 1.5 eV–200 eV energy electron impact: Similarities with six fluorine containing molecules and evidence of F-atom like scattering. <i>Journal of Chemical Physics</i> , 2014, 141, 124302. | 2.6 | 8 |
| 65 | Electronic Doppler effect in resonant Auger decay of CO molecules upon excitation near a shake-up resonance. <i>Physical Review A</i> , 2007, 76, . | 2.5 | 7 |
| 66 | Crossed-beam experiment for the scattering of low- and intermediate-energy electrons from BF ₃ : A comparative study with XF ₃ (X = C, N, and CH) molecules. <i>Journal of Chemical Physics</i> , 2015, 143, 024313. | 3.0 | 7 |
| 67 | Negative ion formation through dissociative electron attachment to the group IV tetrabromides: Carbon tetrabromide, silicon tetrabromide and germanium tetrabromide. <i>International Journal of Mass Spectrometry</i> , 2014, 365-366, 275-280. | 1.5 | 6 |
| 68 | Angular dependence of double electron capture in collisions of C ₄ ⁺ with He. <i>European Physical Journal D</i> , 2006, 38, 59-64. | 1.3 | 5 |
| 69 | Electron and positron scattering from the benzene derivative benzotrifluoride: Total and vibrational excitation cross sections. <i>Physical Review A</i> , 2009, 79, . | 2.5 | 5 |
| 70 | Benchmark Integral Cross Sections for Electron Impact Excitation of the $n=2$ States in Helium. <i>Plasma Science and Technology</i> , 2010, 12, 348-352. | 1.5 | 5 |
| 71 | Dissociative electron attachment to carbonyl fluoride, F ₂ CO. <i>International Journal of Mass Spectrometry</i> , 2011, 303, 125-128. | 1.5 | 5 |
| 72 | Absolute cross section measurements for the scattering of low- and intermediate-energy electrons from PF ₃ . I. Elastic scattering. <i>Journal of Chemical Physics</i> , 2017, 147, 224308. | 3.0 | 5 |

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|----|---|-----|-----------|
| 73 | Total cross-section for low-energy and very low-energy electron collisions with O ₂ . Journal of Physics B: Atomic, Molecular and Optical Physics, 2019, 52, 035201. | 1.5 | 5 |
| 74 | Photoabsorption spectra of CF ₃ I and thermally dissociated CF ₃ I near the C 1s, I 3d and F 1s ionisation thresholds. Journal of Electron Spectroscopy and Related Phenomena, 2008, 164, 24-27. | 1.7 | 4 |
| 75 | Bending-induced diminution of shape resonances in the core-level absorption region of hot CO ₂ and N ₂ O. New Journal of Physics, 2010, 12, 123017. | 2.9 | 3 |
| 76 | Absolute cross section measurements for the scattering of low- and intermediate-energy electrons from PF ₃ . II. Inelastic scattering of vibrational and electronic excitations. Journal of Chemical Physics, 2018, 148, 084313. | 3.0 | 3 |
| 77 | Analysis of the resonant Auger decay during ultrafast fragmentation of CH ₃ F. AIP Conference Proceedings, 2006, , . | 0.4 | 2 |
| 78 | Multielectron processes in close collisions of slow Ne ^{q+} (q=1-9) ions with Ar atoms. Physical Review A, 2007, 75, . | 2.5 | 2 |
| 79 | Electron and positron induced processes. POSMOL 2013. European Physical Journal D, 2014, 68, 1. | 1.3 | 2 |
| 80 | Change in resonance parameters of a linear molecule as it bends: Evidence in electron-impact vibrational transitions of hot COS and CO ₂ molecules*. European Physical Journal D, 2016, 70, 1. | 1.3 | 2 |
| 81 | Studies on Ge ₄ Valence and Rydberg States by Electron Impact Spectroscopy and Ab Initio Calculations. Journal of Physical Chemistry A, 2016, 120, 9170-9177. | 2.5 | 2 |
| 82 | Experimental scaling of plane-Born cross sections and <i>ab initio</i> assignments for electron-impact excitation and dissociation of XF ₄ (X = C, Si, and Ge) molecules. Journal of Chemical Physics, 2017, 146, 144306. | 3.0 | 2 |
| 83 | Multi-electron processes in large-angle scattering between slow Ne ^{q+} (q=1, 2 and 3) and Ar. Nuclear Instruments & Methods in Physics Research B, 2005, 235, 347-351. | 1.4 | 1 |
| 84 | Symmetry and vibrationally resolved absorption spectra near the Kedges of N ₂ O: Experiment and theory. Physical Review A, 2011, 83, . | 2.5 | 1 |
| 85 | Changes in site-specific shape resonances in nitrogen K-shell photoionization of N ₂ O induced by vibrational excitation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2018, 51, 065402. | 1.5 | 1 |
| 86 | Shake-up and photoelectron-impact mechanisms of the satellite excitations in the molecular core level photoemission. AIP Conference Proceedings, 2003, , . | 0.4 | 0 |